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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,627	09/23/2003	Kazuko Shinozaki	382.1029DIV2	7894

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EXAMINER

KRUSE, DAVID H

ART UNIT PAPER NUMBER

1638

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/668,627

Applicant(s)

SHINOZAKI ET AL.

Examiner

David H. Kruse

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply.

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 5-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### STATUS OF THE APPLICATION

1. This Office action is in response to the Remarks filed 18 August 2006.
2. The rejection of claims 5-8 under 35 U.S.C. § 103(a) as being unpatentable over Liu *et al* (The Plant Cell August 1998, 10: 1391-1406) in view of Shinwari *et al* (Biochem. Biophys. Res. Comm. September 1998, 250: 161-170) is withdrawn in view of the Shinozaki and Kasuga Declaration under 37 C.F.R. § 1.132, filed 18 August 2006.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 102***

4. Claims 5 and 7 remain rejected under 35 U.S.C. § 102(e) as being anticipated by Thomashow *et al* (U.S. Patent 6,417,428 B1, filed 23 November 1998, and claiming priority as a continuation-in-part to U.S. Patent Application 09/017,816, filed 3 February 1998). This rejection is repeated for the reason of record as set forth in the last Office action mailed 18 May 2006. Applicant's arguments filed 18 August 2006 have been fully considered but they are not persuasive.

Applicants argue that Thomashow *et al* describe a transgenic plant with CBF3 gene, but does not disclose a transgenic plant transformed with CBF2 gene (SEQ ID NO: 12) (page 3, 3<sup>rd</sup> paragraph of the Remarks). This argument is not found to be persuasive, as stated in the previous Office action, Thomashow *et al* disclose the plant at Claim 8, there is no requirement for Thomashow *et al* to reduce to practice the claimed invention in the specification. The Examiner has provided evidence that SEQ ID

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NO: 13 of Thomashow *et al* is identical in structure to SEQ ID NO: 8 of the instant invention. The Examiner had previously stated that Thomashow *et al* defined "regulated by changes in environment conditions" as being temperature and/or dryness, both well established stress factors in plants in the instant art. Thomashow *et al* explicitly disclose that the rd29b gene promoter is encompassed by the invention, said promoter regulating expression by desiccation, salt stress and exogenous AGA treatment (see column 26, 1<sup>st</sup> paragraph).

Applicants argue that Thomashow *et al* do not describe the idea of introducing CBF genes into the plant together with a stress responsive promoter comprising a DRE region (page 3, 4<sup>th</sup> paragraph of the Remarks). This argument is not found to be persuasive because the recitation of the promoter in the instant claims is not limited to a stress responsive promoter comprising a DRE region.

***Claim Rejections - 35 USC § 103***

5. Claims 6 and 8 remain rejected under 35 U.S.C. § 103(a) as being unpatentable over Thomashow *et al* (U.S. Patent 6,417,428 B1, filed 23 November 1998, and claiming priority as a continuation-in-part to U.S. Patent Application 09/017,816, filed 3 February 1998). This rejection is repeated for the reason of record as set forth in the last Office action mailed 18 May 2006. Applicant's arguments filed 18 August 2006 have been fully considered but they are not persuasive.

Applicants argue that the sequence shown in SEQ ID NO: 7 of the present invention is not the same as the coding sequence shown in SEQ ID NO: 12 of Thomashow and that Thomashow neither teaches nor suggests a transgenic plant

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transformed with the vector wherein the DREB1C gene is operably linked downstream of a stress-responsive promoter (page 4, 3<sup>rd</sup> paragraph of the Remarks). These arguments are not found to be fully persuasive. It is unclear from Applicants' teachings if the leading 134 nucleotides and the subsequent 159 nucleotides of SEQ ID NO:7, that do not encode a protein, would lead to a teaching of unexpected results, since such nucleotides would produce a functionally identical transgenic plant. This fact would have been obvious to one of ordinary skill in the art at the time of Applicant's invention.

Applicants argue that the [Shinozaki] declaration [filed under 37 C.F.R. § 1.132, filed 18 August 2006] and the attached exhibits show the stress tolerance of a transgenic plant transformed with the claimed vector, where the DREB 1C gene is operably linked downstream of a stress-responsive promoter, as claimed (page 5, 1<sup>st</sup> paragraph of the Remarks). This argument is not found to be persuasive because it merely demonstrates an inherent property of the transgenic plant claimed by Thomoshow *et al.*

### ***Double Patenting***

6. Claims 5-8 remain rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 7,045,355. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed transformed host cell and vector comprising SEQ ID NO: 7 renders obvious the transgenic plant of the instant application. Applicants state that Applicants herewith submit a Terminal Disclaimer disclaiming the term of the present application that extends past the term of commonly-owned U.S. Patent No.

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7,045,355 (page 6, 2<sup>nd</sup> paragraph of the Remarks). As no terminal disclaimer is yet of record, the instant rejection is maintained.

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

8. No claims are allowed.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David H. Kruse, Ph.D. whose telephone number is (571) 272-0799. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached at (571) 272-0975. The central FAX number for official correspondence is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (571) 272-1600.

DAVID H. KRUSE, PH.D.  
PRIMARY EXAMINER



David H. Kruse, Ph.D.  
24 October 2006

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

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